

Claims

1. Wiper blade for window panes in motor vehicles, with an elongated rubber-elastic wiping strip (20) which can contact the window pane (14) and is provided at both of its longitudinal sides (30) with open-edged longitudinal receiving grooves (32) which are arranged in a plane approximately parallel to the window pane and in which a strip-like, elongated, resilient carrying rail (12) is accommodated in each instance, the inner edges of the carrying rail (12) which face one another contact a longitudinal web (36) of the wiping strip remaining between the grooves (32) and the two carrying rails (12) are secured in their receiving grooves transverse to their longitudinal extension by a holder (16) which is arranged at the upper strip surfaces (13) of the carrying rails remote of the window pane, wherein the holder is provided with L-shaped claws (46), the first L-leg (48) traversing the outer edges (52) of the carrying rails and the second L-leg (50) engaging under the respective carrying rail (12), characterized in that the distance (60) measured transverse to the longitudinal extension of the wiper blade (10) between the inner edges of the first L-leg (48) which face one another is less than the sum of the width (62) of the two carrying rails (12) plus the width (46) of the longitudinal web (36) of the wiping strip (20).
*must be uncomressed state must use maximum width of rail
must clarity*

2. Wiper blade according to claim 1, characterized in that each of the two carrying rails (12) projects out of its receiving groove (32) at least along a longitudinal portion by an edge strip, and in that the second L-legs (50) engage the lower strip surface (19) of their carrying rails (12) which faces the window pane (14).

3. Wiper blade according to ~~one of claims 1 or 2~~, characterized in that the holder (16) has a plate-like body (42) which is supported at the upper strip surfaces (13) of the carrying rails (12), the first L-legs (48) of the claws (46) being connected with longitudinal sides (44) of this plate-like body (42) that are located opposite one another.

claim 1

A 2 4. Wiper blade according to ~~one of claims 1 to 3~~, characterized in that the claws (46) are arranged at ~~the longitudinal sides (44)~~ by pairs located opposite one another.

claim 3

A 5. Wiper blade according to ~~one of claims 3 or 4~~, characterized in that the body (42) of the holder (16) is provided at its underside facing the upper strip surfaces (13) of the two carrying rails (12) with a longitudinal cutout (54) for receiving a cover strip (40) of the wiping strip (20) defining the width of the two receiving grooves (32).

claim 1

A 6. Wiper blade according to ~~one of claims 1 to 5~~, characterized in that the holder (16) is provided with means (48) for connecting the wiper arm (18).

claim 1

A 7. Wiper blade according to ~~one of claims 1 to 6~~, characterized in that the lower strip surfaces (19) of the two carrying rails (12) together enclose an angle (α) that is less than 180° .

claim 1

A 8. Wiper blade according to ~~one of claims 1 to 7~~, characterized in that the holder (16) is made of plastic.

claim 1

A 9. Wiper blade according to ~~one of claims 1 to 7~~, characterized in that the holder (16) is made of metal.

claim 1

A 10. Wiper blade according to ~~one of claims 1 to 9~~, characterized in that each carrying rail (112, 212, 312, respectively) is provided with at least one projection (116, 216, 316, respectively) at its inner longitudinal edges (114, 214, 314, respectively) facing the longitudinal web (36) of the wiping strip (20).

A 11. Wiper blade according to claim 10, characterized in that the projection (116) of one carrying rail (112) is located opposite to the projection (116) of the other carrying rail (112).

12. Wiper blade according to claim 10, characterized in that the projection (216) of one carrying rail (212) is arranged so as to be offset with respect to the projection (216) of the other carrying rail (212) in its longitudinal direction.

13. Wiper blade according to claim 10, characterized in that a recess (318) of one carrying rail (312 or 313) is located opposite to the projection (316) of the other carrying rail (312 or 313).

A
A

claim 1

14. Method for mounting a wiper blade constructed in accordance with ~~one of claims 1 to 13~~, characterized in that the carrying rails (12) are introduced into their receiving grooves (32) and their upper strip surfaces (13) are tilted relative to one another in such a way that, together, they enclose an angle (β) of less than 180° , in that the carrying rails (12) are then inserted together with the wiping strip (20) into the existing space (80) between the claws (46) arranged at the oppositely located longitudinal sides (44) of the holder (16), in which space (80) the carrying rails (12), when released, automatically attain their operating position and are fixed in the holder (16) together with the wiping strip (20) by the resulting tension of the longitudinal web (36).

DEUTSCHE
PATENT UND
MARKEN AUSZEICHNUNG
GEMEINSAM
MIT
DEUTSCHEM
KOMMUNIKATION
IN
SCHWEIZ
AG
ZÜRICH
1980